

EITEL-McCULLOUGH, Inc.

SAN BRUNO, CALIFORNIA

250TL

LOW-MU TRIODE
MODULATOR
OSCILLATOR
AMPLIFIER

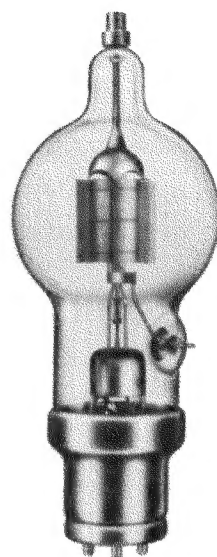
GENERAL CHARACTERISTICS

ELECTRICAL

Filament: Thoriated tungsten	
Voltage - - - - -	5.0 volts
Current - - - - -	10.5 amperes
Amplification Factor (Average) - - - - -	14
Direct Interelectrode Capacitances (Average)	
Grid-Plate - - - - -	3.1 $\mu\mu\text{f}$
Grid-Filament - - - - -	3.7 $\mu\mu\text{f}$
Plate-Filament - - - - -	0.7 $\mu\mu\text{f}$
Transconductance ($I_b=350$ ma., $E_b=3000$, $e_c=-130$)	2650 μmhos
Frequency for Maximum Ratings - - - - -	40 mc

MECHANICAL

Base - - - - -	4 pin, No. 5001B
Basing - - - - -	RMA type 2N
Maximum Overall Dimensions:	
Length - - - - -	10.125 inches
Diameter - - - - -	3.813 inches
Net weight - - - - -	12 ounces
Shipping weight (Average) - - - - -	2.25 pounds



AUDIO FREQUENCY POWER AMPLIFIER AND MODULATOR

Class B

	TYPICAL OPERATION—2 TUBES			MAX. RATING	
D-C Plate Voltage - - - - -	1500	2000	3000	3000	volts
Max.-Signal D-C Plate Current, per tube* - -	•	•	•	350	ma.
Plate Dissipation, per tube* - - - - -	•	•	•	250	watts
D-C Grid Voltage (approx.) - - - - -	-40	-80	-175		volts
Peak A-F Grid Input Voltage - - - - -	770	800	840		volts
Zero-Signal D-C Plate Current - - - - -	200	150	100		ma.
Max.-Signal D-C Plate Current - - - - -	700	650	500		ma.
Max.-Signal Driving Power (approx.) - - -	32	28	17		watts
Effective Load, Plate-to-Plate - - - - -	3700	6150	13000		ohms
Max.-Signal Plate Power Output - - - - -	580	800	1000		watts

*Averaged over any sinusoidal audio frequency cycle.

RADIO FREQUENCY POWER AMPLIFIER AND OSCILLATOR

Class-C *Telegraphy

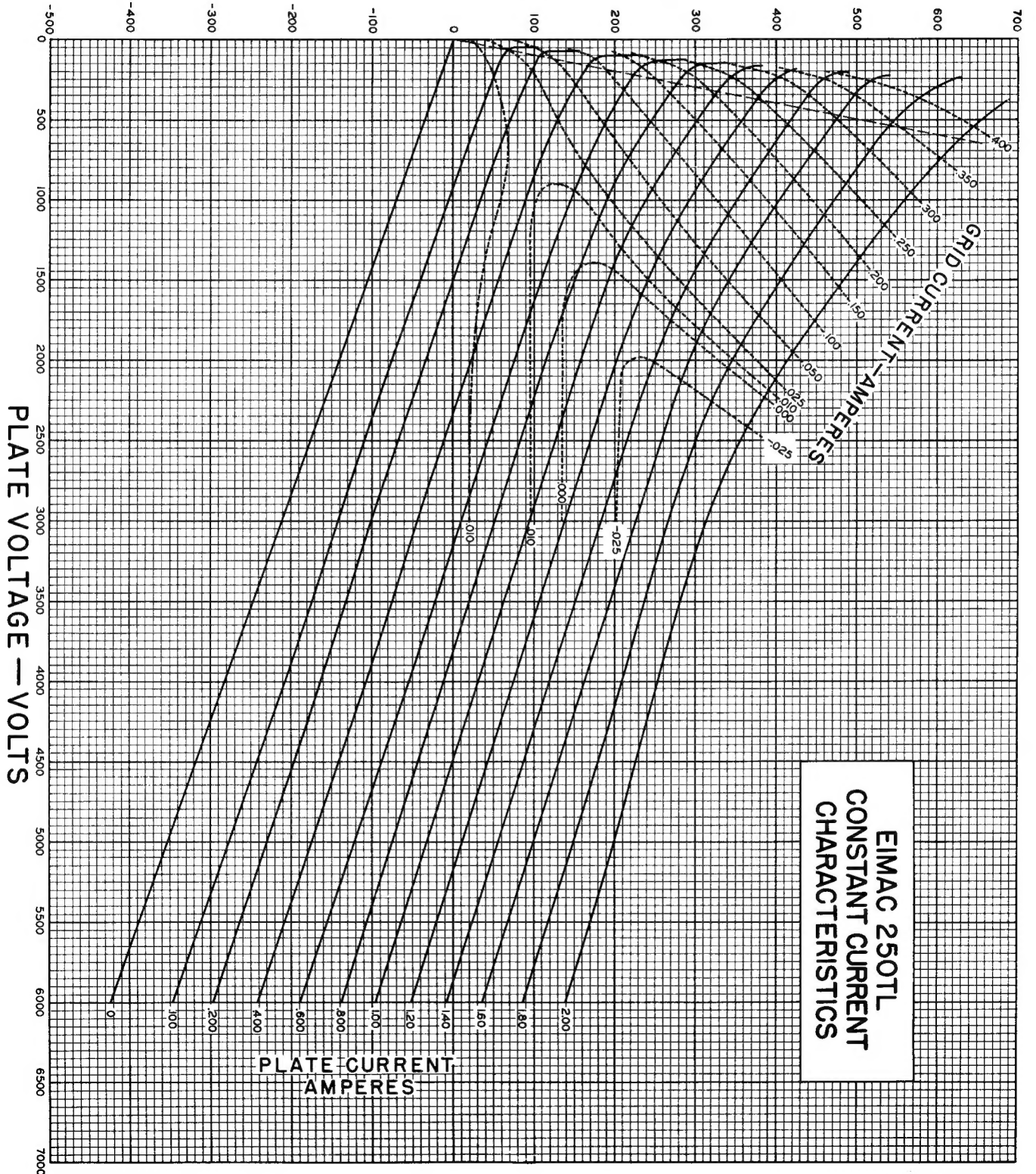
(Key down conditions without modulation)

	TYPICAL OPERATION—1 TUBE			MAX. RATING	
D-C Plate Voltage - - - - -	2000	3000	4000	4000	volts
D-C Plate Current - - - - -	350	335	310	350	ma.
D-C Grid Current - - - - -	45	45	40	50	ma.
D-C Grid Voltage - - - - -	-200	-350	-500		volts
Plate Power Output - - - - -	455	750	1000		watts
Plate Input - - - - -	700	1000	1250		watts
Plate Dissipation - - - - -	245	250	250	250	watts
Peak R. F. Grid Input Voltage, (approx.) - -	575	720	900		volts
Driving Power, (approx.) - - - - -	22	29	33		watts

*The above figures show actual measured tube performance, and do not allow for variations in circuit losses.

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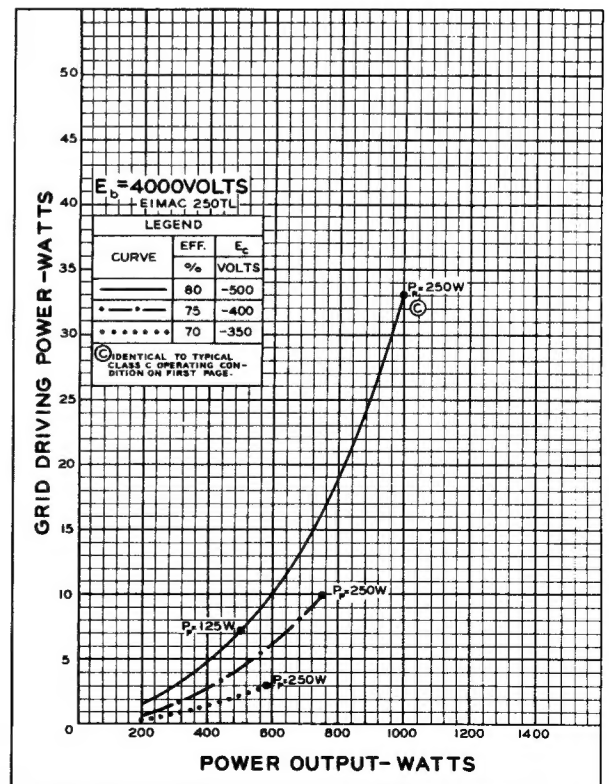
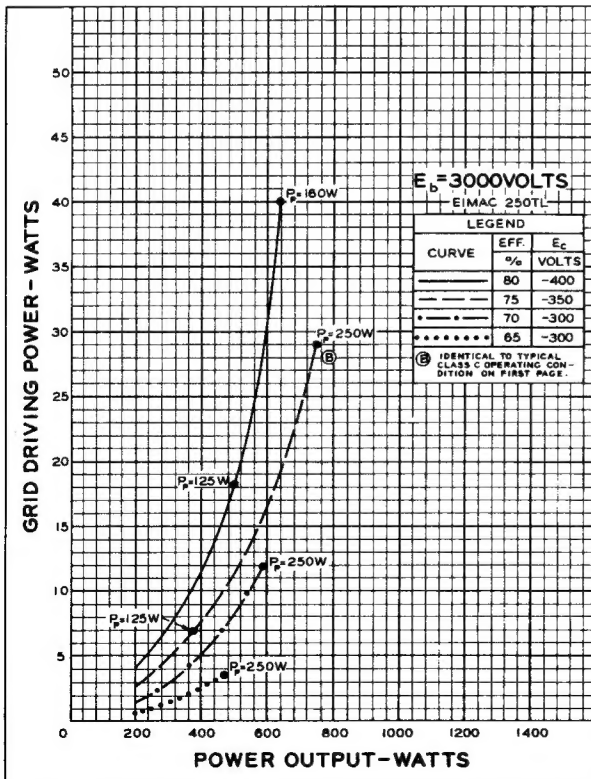
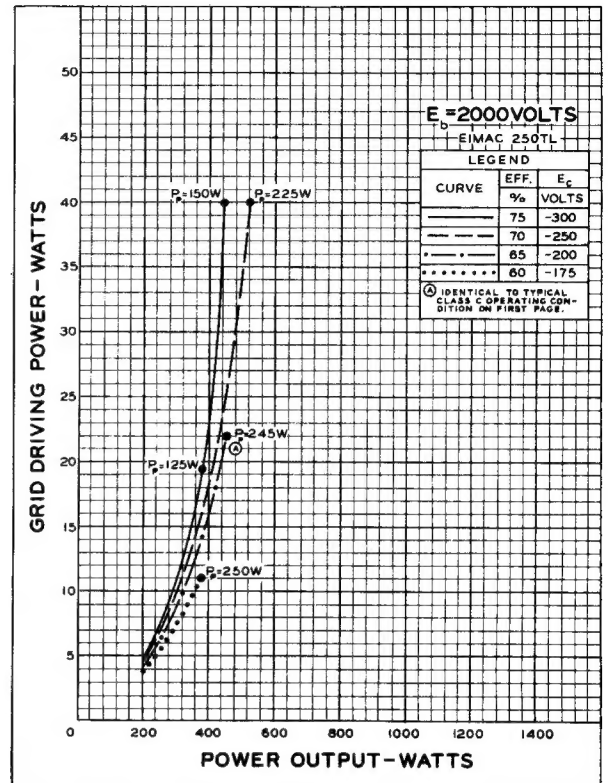
GRID VOLTAGE—VOLTS

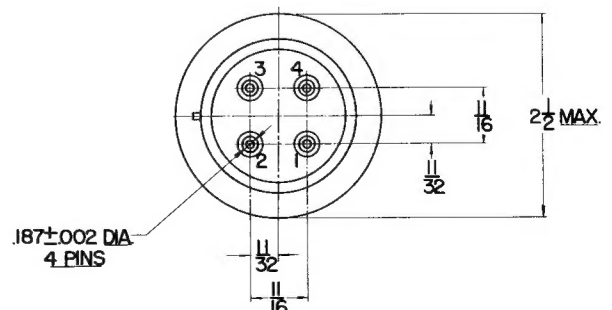
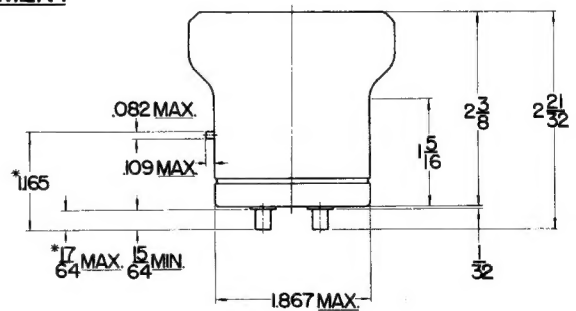
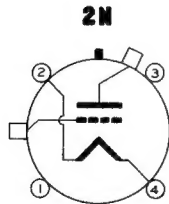


DRIVING POWER vs. POWER OUTPUT

The three charts on this page show the relationship of plate efficiency, power output and grid driving power at plate voltages of 2000, 3000 and 4000 volts. These charts show combined grid and bias losses only. The driving power and power output figures do not include circuit losses. The plate dissipation in watts is indicated by P_p .

Points A, B, and C are identical to the typical Class C operating conditions shown on the first page under 2000, 3000, and 4000 volts respectively.





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